

**TUBE TYPE HEAT EXCHANGER WITH MOTOR OR GENERATOR HOUSING**

**ABSTRACT OF THE DISCLOSURE**

A cooling assembly is provided for an electromechanical device, such as an electromagnetic or generator, including a housing having a wall portion. A magnetic field member is disposed within the housing and is arranged adjacent to the wall portion. A shaft having windings is located within the magnetic field member with an electric current flowing through the windings, which coacts with the magnetic field member. The magnetic field member and the windings produces an undesirable level of heat. The present invention incorporates a helical cooling coil defining a fluid conduit arranged adjacent to the magnetic field member for removing heat from the electromechanical device.